

CAI
L 9
-56A56

*Canada National Committee on the
Plastering trade,
General publication 76-17*

AN ANALYSIS

OF THE

PLASTERING TRADE

PREPARED BY

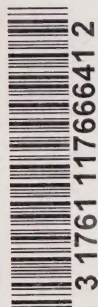
A NATIONAL COMMITTEE

APPOINTED BY

THE DEPARTMENT OF LABOUR

OTTAWA, CANADA

1956



AN ANALYSIS
OF THE
PLASTERING TRADE



PREPARED BY
A NATIONAL COMMITTEE
APPOINTED BY
THE DEPARTMENT OF LABOUR
OTTAWA, CANADA
1956

AN ANALYSIS OF THE PLASTERING TRADE

TABLE OF CONTENTS

A. INTRODUCTION

B. DIVISIONS OF THE ANALYSIS

BLOCK I	-	Base and Finish Coats - Interior Work	Page 1
BLOCK II	-	Base and Finish Coats - Exterior Work	Page 5
BLOCK III	-	Repairs - Details of Various Procedures	Page 10
BLOCK IV	-	Moulds - Construction and Use	Page 14
BLOCK V	-	Cornice Work - Running and Miterring	Page 20
BLOCK VI	-	Bench Work - Running Miscellaneous Details	Page 24
BLOCK VII	-	Arches - Different Types and Techniques	Page 28
BLOCK VIII	-	Columns - Different Types and Techniques	Page 37
BLOCK IX	-	Special Features - Miscellaneous Techniques	Page 40

COMMITTEE

Chairman: Alexander Martin

Member: William Léger

Member: Americo Rossini



Digitized by the Internet Archive
in 2022 with funding from
University of Toronto

<https://archive.org/details/31761117666412>

AN ANALYSIS OF THE PLASTERING TRADE

INTRODUCTION

The first National Conference on Apprenticeship in Trades and Industries held at Ottawa in May 1952, recommended that the Federal Government be requested to co-operate with Provincial apprenticeship committees and others concerned in preparing analyses of a number of skilled occupations.

In implementing the above recommendation, the Training Branch of the Federal Department of Labour appointed a number of committees, each of which has compiled an analysis of one trade. In the case of the Plastering Trade a committee was organized in April 1956 in Montreal with Mr. Gabriel Rousseau, Technical Advisor to the Provincial Government of the Province of Quebec, as co-ordinator. This committee included Mr. Alexander Martin, Chief Instructor in the Apprenticeship Training Centre who acted as Chairman; Mr. William Leger, President, Building Trades Federation of Canada and Business Agent of the Plasterers Association of Montreal and Mr. Americo Rossini, Plastering Contractor.

SCOPE OF THE ANALYSIS

Because the practice of this trade varies province to province, it was decided that the analysis would set forth only those phases of the trade that are considered essential in each and every province. In other words, this would be an analysis reduced to a point such that officials of no province would eliminate any part as being non-essential to the trade. Therefore, it sets forth a body of skills and information common to all sections of Canada. It should be noted that this analysis is not a course of study nor is it intended that operations be undertaken in the sequence shown.

PROCEDURE

To ensure that the final compilation would be nationally acceptable, a referee was named in each of the other provinces by the respective Regional Directors. As the work of the national committee proceeded, portions of the analysis were sent to each of these referees for review. Their criticisms were studied by the committee and in the light of same the following tabulation of operations and related knowledge was compiled. This then can be considered the National Analysis of the Plastering Trade reduced to the essential content. Each referee mentioned above, in addition to advising on the content of the analysis, was required to secure formal acceptance and approval by the appropriate provincial advisory committee and other authorities.

This analysis comprises a series of Blocks, each of which is a group of related units. Each unit is divided into a number of operations with related knowledge indicated. A code system for reference purposes is used by which Block two, Unit one, Operation eight and item (a) under Knowledge for example, would be represented by the following, B₂ U₁ O₈ K_a. Such subjects as Mathematics, Science, Blueprint reading and Safety are included where applicable. Blueprint reading is intended to include written specifications and other details.

AN ANALYSIS OF THE PLASTERING TRADE

INTRODUCTION

The safety code numbers refer to Bulletin 2903, Code of Construction Safety Measures, issued by the National Research Council, Ottawa.

PURPOSES AND USES OF ANALYSIS

The committee recommends this analysis as (i) a guide to foremen and others who do training on the job; (ii) a basis for programs in industry and for courses of study in vocational schools, trades institutes or other centres; (iii) a yard stick by which previous experience may be evaluated; (iv) a means of transferring apprenticeship credits from province to province.

It is the sincere hope of the committee that this effort will contribute to the nation-wide development of apprenticeship training and that it will be accepted as a standard of attainment for the granting of completion certificates to apprentices and also certificates of qualification to journeymen.

The committee desires to express its appreciation to officials of the Training Branch of the Department of Labour, Ottawa for their co-operation and guidance. Thanks are also due to the Regional Directors and referees in the various provinces who rendered assistance in this project.

AN ANALYSIS OF THE PLASTERING TRADE

Block 1: Base and Finish Coats - Interior Work

TABLE OF CONTENTS

Block One - One Unit

Operation	Page
1: Applying First or Scratch Coat	2
2: Doubling-up or Applying Second Coat	2
3: Squaring a Room	2
4: Dotting and Securing a Line	2
5: Spacing Dots to Suit Straight Edge	2
6: Levelling Ceiling and Beams	3
7: Browning Coat Without Screeds	3
8: Soaking, Slaking and Finishing Putty Coat	3
9: Gauging and Applying Finish Coat	3
10: Finishing and Troweling Angles, Soffits and Panels	3
11: Floating to Produce Sand Finish	3
12: Applying and Finishing Irregular and Imitation Stone Finishes	4
13: Laying-on and Troweling No-Lime Smooth Surface Plaster	4
14: Laying-on and Finishing Acoustical Plasters	4
15: Laying-on and Troweling Keen's Cement	4
16: Laying-on of Binder Material	4

AN ANALYSIS OF THE PLASTERING TRADE

BLOCK 1: Base and Finish Coats -
Interior Work

UNIT 1: Walls and Ceilings

OPERATIONS	KNOWLEDGE
1. Applying first or scratch coat:	(a) Blueprint and Specification Reading to determine details of Under-Base - Interpretation of Architectural Symbols. (b) Method of handling hawk and trowel. (c) Fabrication of scratch tool. (d) Use of scratch tool. (e) Proportions and proper mix of materials. (f) Care of tools and equipment. (g) Use of gypsum and sand. (h) Use of light weight aggregates. (i) Science: (a) How gypsum is processed. (j) Mathematics - Calculation of area of surfaces to be covered. (k) Safety Precautions Code - 8.2., 8.4.3., 8.6.2., 8.8., 8.9. and 8.14.
2. Doubling up or applying second coat:	(a) Bl, Ul, Ol, Kb, e, f. (b) Use and handling of the straight edge. (c) Cutting internal angles. (d) Use of screeds and grounds. (e) Use of float. (f) Science - Manufacturers' Admix Materials.
3. Squaring a room:	(a) Mathematics - Geometry of right angled triangle. (b) Method 3, 4, 5; Right-angle triangle. (c) Bisected center-line method. (d) Laying-out on floor. (e) Use of rule and tape.
4. Dotting and securing line:	(a) Use of spirit level. (b) Use of plumb bob. (c) Use of gage sticks. (d) Use of chalk line. (e) Methods of dotting. (f) Bl, Ul, Ol, Kb, e. (g) Science - Leveling and plumbing.
5. Spacing dots to suit straight edge:	(a) Method of setting out. (b) Use of too many dots. (c) Allowance at ends of rod. (d) Science - Length of rods to suit work.

AN ANALYSIS OF THE PLASTERING TRADE

BLOCK 1: Base and Finish Coats -
Interior Work

UNIT 1: Walls and Ceilings

OPERATIONS	KNOWLEDGE
6. Leveling Ceiling and beams:	<ul style="list-style-type: none"> (a) Blueprint reading to determine height. (b) Use of bench mark. (c) Use of water level. (d) Method of reading water level. (e) Fabrication and use of wooden square. (f) Bl, Ul, O2, Kb. (g) Bl, Ul, O4, Ka, e. (h) Safety Precautions Code - 8.8. and 8.9.
7. Browning coat without screeds:	<ul style="list-style-type: none"> (a) Laying on a true coat. (b) Bl, Ul, Ol, kb. (c) Use of grounds. (d) Use of darby.
8. Soaking, slaking and finishing putty coat:	<ul style="list-style-type: none"> (a) Method of soaking hydrated lime. (b) Method of slaking lump lime. (c) Method of troweling. (d) Use of brush. (e) Bl, Ul, Ol, Kb, e, f. (f) Science: (a) Joinings. (g) Mathematics: Calculation of area of surfaces to be covered.
9. Gauging and applying finish coat:	<ul style="list-style-type: none"> (a) Method of gauging. (b) Bl, Ul, Ol, kb, e. (c) Scratching, doubling and draw up. (d) Laying on and thickness. (e) Science - Setting action of gypsum.
10. Finishing and troweling angles, soffits and panels:	<ul style="list-style-type: none"> (a) Use of feather-edge. (b) Use of angle trowel. (c) Bl, Ul, Ol, Kb, e. (d) Bl, Ul, O8, Kc, d.
11. Floating to produce sand finish:	<ul style="list-style-type: none"> (a) Blueprint reading to determine locations. (b) Thickness to apply. (c) Method of floating. (d) Bl, Ul, Ol, Kb, e. (e) Bl, Ul, O2, Ke. (f) Science - Suction and proper time between floatings.

AN ANALYSIS OF THE PLASTERING TRADE

BLOCK 1: Base and Finish Coats - Interior Work

UNIT 1: Walls and Ceilings

OPERATIONS	KNOWLEDGE
12. Applying and finishing irregular and imitation stone finishes:	<ul style="list-style-type: none"> (a) Use of sponge, stippling and steel brushes, etc. (b) Bl, Ul, Ol, Kb, e. (c) "Knack" to develop various textures. (d) Method of jointing and pointing. (e) Science - Techniques to follow in using patented plasters.
13. Laying-on and troweling no-lime smooth surface plaster:	<ul style="list-style-type: none"> (a) Bl, Ul, Ol, Kb. (b) Bl, Ul, O8, Kd. (c) Method of application. (d) Cutting joinings. (e) Science: Importance of following manufacturers' directions.
14. Laying-on and finishing acoustical plasters:	<ul style="list-style-type: none"> (a) Blueprint reading to determine type. (b) Bl, Ul, Ol, Kb. (c) Bl, Ul, O2, Ke. (d) Use of pin stippler. (e) Care that pores are not sealed. (f) Avoid joinings. (g) Science - Use of manufacturers' specific directions.
15. Laying-on and troweling Keen's cement:	<ul style="list-style-type: none"> (a) Bl, Ul, Ol, Kb. (b) Bl, Ul, Ol3, Kc, d. (c) Proper working of material. (d) Use of white silica sand. (e) How to fabricate and use a tile marker. (f) Methods of marking off imitation tiles. (g) Science - Why admix materials reduce strength and hardness.
16. Laying-on of binder material:	<ul style="list-style-type: none"> (a) Blueprint reading to determine under base. (b) Use on cement blocks. (c) Use on monolithic concrete. (d) Methods to roughen and clean surfaces. (e) Method to grout surface for key. (f) Science - Types of specially manufactured material.

AN ANALYSIS OF THE PLASTERING TRADE

Block 2: Base and Finish Coats - Exterior Work

TABLE OF CONTENTS

	Page
Unit 1: Portland Cement Stucco	6
Operation 1: Mixing on the Job	
2: Applying Scratch and Doubling-up Coats	
3: Finishing with white Portland Cement	
Unit 2: Manufactured Stucco Base-coat	7
Operation 1: Applying Rendering Coat and Doubling-up Coat	
Unit 3: Factory made Colored Stucco Finishes	8
Operation 1: Producing Texture by Dashing	
2: Producing English Cottage Texture	
3: Producing Float Texture	
4: Producing Sponge Texture	
Unit 4: Imitation Stone Stucco	9
Operation 1: Producing Various Designs	

AN ANALYSIS OF THE PLASTERING TRADE

BLOCK 2: Base and Finish Coats -
Exterior Work

UNIT 1: Portland Cement Stucco

OPERATIONS	KNOWLEDGE
<hr/>	
1. Mixing on the job:	(a) Use of mixing tools and procedure. (b) Use of mineral pigments for coloring. (c) Use of hair or fibers. (d) Science: (i) How to proportion mixes, i.e. use of proper quantities of cement, aggregate and water. (ii) Selection of suitable aggregates. (iii) Initial set, etc., for cement.
2. Applying scratch and doubling-up coats:	(a) Blueprint and Specification reading to determine base-coats. (b) Interpretation of architectural symbols. (c) Importance of rigid background. (d) Necessity of waterproofing various coats. (e) Why absorbent under-base must be saturated. (f) Method of curing various coats. (g) Method of and need for sprinkling each coat. (h) Use of flashing of proper style. (i) Methods of forming key on second coat for finish textures. (j) Mathematics: Calculation in sq. yds. of surface to be covered. (k) Safety Code: 8.8, 8.9 and 8.14.
3. Finishing with white portland cement:	(a) Bl, Ul, Ol, Kb. (b) Spray lightly to avoid check cracking. (c) Method of shielding work from the sun and wind. (d) Use of cork or sponge rubber float. (e) Method of imbedding projecting particles. (f) Use of trowel to flatten surface. (g) Science: (i) where used (ii) techniques of producing various textures.

AN ANALYSIS OF THE PLASTERING TRADE

BLOCK 2: Base and Finish Coats -
Exterior Work

UNIT 2: Manufactured Stucco
base-coat

OPERATIONS

KNOWLEDGE

1. Applying rendering or first coat and doubling-up or second coat:

- (a) Blueprint reading to determine under bases.
- (b) B1, U1, O1, Kb, e.
- (c) Method of cross-scratching for second coat.
- (d) Proper thickness of second coat to permit straightening.
- (e) Reasons for curing before applying second coat.
- (f) Method of spraying during hot weather.
- (g) Method of forming a key for the finishing coat.
- (h) Reasons for drying to an even suction.
- (i) B2, U1, O3, Kc.
- (j) Use of suitable flashing.
- (k) Science: (i) Reinforcement, metal lath,
(ii) Masonry, concrete units and tile,
etc., as the under bases.

AN ANALYSIS OF THE PLASTERING TRADE

BLOCK 2: Base and Finish Coats -
Exterior Work

UNIT 3: Manufactured colored stucco
finishes.

OPERATIONS	KNOWLEDGE
<hr/>	
1. Producing texture by dashing:	(a) Blueprint reading to determine color and texture. (b) Bl, Ul, Ol, Kb. (c) Methods of application. (d) Dash coat kept to light consistency. (e) Methods of spatter-dashing. (f) Method of flattening texture when not required.
2. Producing English cottage texture:	(a) Bl, Ul, Ol, Kb. (b) Use of thin even coat. (c) Method of feathering with trowel. (d) Use of short and twisting strokes when adding small amounts of material at varying angles. (e) How to vary texture with heavier application of material also with the length, direction and twisting "kack" of the trowel.
3. Producing float texture:	(a) Bl, Ul, Ol, Kb. (b) Reason for spraying on previous day. (c) Use of an even suction. (d) Use of two thin coats. (e) Method of applying second coat tight as possible. (f) Method of avoiding discolouration. (g) How to float with various type float soles.
4. Producing sponge texture:	(a) Bl, Ul, Ol, Kb. (b) Use of clean tools and mixing equipment. (c) Method of curing and keeping base coats damp. (d) Reasons for using sufficient material to complete one wall. (e) Care required when using additional material to the batch. (f) Method and use of light consistency material for sponging. (g) Method of handling sponge. (h) Procedure to remove trowel marks and to finish by using the sponge material.

AN ANALYSIS OF THE PLASTERING TRADE

BLOCK 2: Base and Finish Coats -
Exterior Work

UNIT 4: Imitation Stone Stucco

OPERATIONS	KNOWLEDGE
<hr/>	
1. Producing various designs:	(a) Blueprint reading to determine type and color. (b) Bl, Ul, Ol, Kb. (c) Method of laying-out and cutting joints. (d) Use of metal moulds to imitate rock-face stones. (e) Use of wax paper. (f) Method of sprinkling colored material over the wax paper in the mould. (g) Method and use of shaker cans. (h) Science: (i) Breaking joints (ii) Jointing to secure consistent texture.

AN ANALYSIS OF THE PLASTERING TRADE

Block 3: Repairs - Details of Various Procedures

TABLE OF CONTENTS

	Page
Unit 1: Procedures	11
Operation 1: Repairing Miscellaneous Damaged Conditions	
Unit 2: Various Kinds of Lath	12
Operation 1: Installing Metal Lath	
2: Installing Fiber Lath	
3: Installing Gypsum Lath	
4: Installing Wood Lath	
Unit 3: Metal Beads	13
Operation 1: Sticking and Nailing Standard Bull-nose and Expanded Corner Beads	
2: Sticking and Nailing Base Screed, Flush Bead and Picture Mould	

AN ANALYSIS OF THE PLASTERING TRADE

BLOCK 3: Repairs - Details
of Various Procedures

UNIT 1: Procedures

OPERATIONS	KNOWLEDGE
<hr/>	
1. Repairing miscellaneous damaged conditions:	(a) Method of covering for cleanliness. (b) Method of removing damaged area. (c) Methods of determining causes of damage. (d) Method of cutting in preparation. (e) Method of dampening patch. (f) Reasons for relieving mortar at joinings. (g) Use of angle reinforcement and metal lath. (h) Method of repairing plaster arrises. (i) Methods used to accelerate setting of materials. (j) How to avoid chalky, damp and stained surfaces, soft and weak walls; map crazing and cracks at arch ways, etc. (k) Safety Precautions Code - 8.13.4., (c), (e), (h), (i), (j).

AN ANALYSIS OF THE PLASTERING TRADE

BLOCK 3: Repairs - Details.
of Various Procedures

UNIT 2: Various Kinds of Lath

OPERATIONS	KNOWLEDGE
1. Installing metal lath:	(a) Blueprint reading to determine type. (b) Use of suspended ceiling. (c) Use of channels. (d) Use of hangers. (e) Use of pencil rods. (f) Use of tie and hanger wire. (g) Use of various types of metal lath. (h) Use of bracket supports. (i) Trade specifications of wire, channels, etc. (j) Science - Effect of dampness on steel.
2. Installing fiber lath:	(a) Use of fiber lath. (b) Desirability of using two separate coats of mortar. (c) Use of good nailing.
3. Installing gypsum lath:	(a) Use of gypsum lath. (b) Use of various types of gypsum lathing systems. (c) Use of gypsum plaster only for base coat.
4. Installing wood lath:	(a) Use of wood lath. (b) Use of number one Pine or Cedar lath. (c) Use and proper application of laths. (d) Use of water to wet down lath.

AN ANALYSIS OF THE PLASTERING TRADE

BLOCK 3: Repairs - Details of Various Procedures

UNIT 3: Metal Beads

OPERATIONS	KNOWLEDGE
<hr/>	
1. Sticking and nailing standard bull-nose and expanded corner beads:	(a) Method of sticking and nailing. (b) Use of snips. (c) Use of hack saw. (d) B1, U1, O1, Kb, e. (e) B1, U1, O4, Ka, b, c, d, e. (f) Methods of notching with snips to form radius for arches or ovals. (g) Methods of mitering metal beads. (h) Blueprint reading to determine length required.
2. Sticking and nailing base screed, flush bead and picture mould:	(a) Method of aligning. (b) B1, U1, O2, kb. (c) B1, U1, O4, Ka, d. (d) B1, U1, O6, Kb, c. (e) B3, U3, O1, Ka, b. c.

AN ANALYSIS OF THE PLASTERING TRADE

Block 4: Moulds - Construction and Use

TABLE OF CONTENTS

	Page
Unit 1: Drawing from Detail	15
Operation 1: Drawing Full Size to Determine Profile of Mould	
2: Transferring Drawing to Metal Mould	
Unit 2: Fabricating the Mould	16
Operation 1: Cutting Profile on Tin Knife	
2: Fabricating Wood Stock to Fit Tin Profile	
3: Cutting Slipper	
4: Shoeing the Slipper	
5: Cutting and Forming Handle and Braces	
6: Laying-out a Hanging Mould	
7: Laying-out a Twin Slipper Mould	
8: Laying-out a Soffit Mould	
9: Laying-out a Tail Mould	
10: Laying-out an Adjustable Splay Mould	
11: Laying-out a Raised and Sunk Panel Mould	
12: Laying-out a Pin Mould	
13: Laying-out a Vertical Corner Mould	
14: Laying-out a Box-mould	
15: Laying-out a Rake Mould	
16: Laying-out a Squeeze Mould	

AN ANALYSIS OF THE PLASTERING TRADE

BLOCK 4: Moulds - Construction
and Use

UNIT 1: Drawing from detail

OPERATIONS	KNOWLEDGE
1. Drawing or tracing full size to determine profile of mould:	(a) Blueprint reading to determine scale or full size. (b) Use of scale rule. (c) Use of T-square, triangles (set squares), compass, etc. (d) Method of developing profile from scale to full size. (e) Methods of producing concave beads and ogees. (f) Use of tracing paper. (g) Method of developing a mould in proportion. (h) Purpose and location of rules. (i) Safety Precautions Code - 8.14.
2. Transferring drawing or tracing to metal mould:	(a) Using tin of proper gauge. (b) The "punch" method of transferring the drawing to tin. (c) Method of tracing with carbon paper. (d) Method of sticking tracing paper to tin.

AN ANALYSIS OF THE PLASTERING TRADE

BLOCK 4: Moulds - Construction and Use

UNIT 2: Fabricating the mould

OPERATIONS	KNOWLEDGE
<hr/>	
1. Cutting tin profile:	(a) Importance of cutting square, the ceiling and wall line of the tin. (b) Method of following sketch outline when cutting. (c) Method of using snips. (d) Use of various types of files.
2. Fabricating wood stock to support tin profile:	(a) Material and thickness of wood for stock. (b) Type of wood. (c) Methods of cutting when using saw. (d) Use of coping saw. (e) Necessity for clearance between profile and stock. (f) Use of nails and punch.
3. Cutting slipper:	(a) Method of determining slipper length. (b) Use of wood chisels. (c) B4, U2, O2, Kb.
4. Shoeing the slipper:	(a) Use of slipper. (b) Use of shoes and nib. (c) Methods of nailing. (d) Methods of finding groove position for stock. (e) Methods of positioning stock of mould on slipper.
5. Cutting and forming handle and braces:	(a) Method of cutting handle for mould. (b) Method of nailing handle. (c) Method of squaring mould when nailing. (d) Use and position of braces. (e) Method of cutting braces.
6. Laying-out a hanging mould:	(a) Blueprint reading to determine location. (b) Method of fabricating. (c) Use of hanging mould. (d) Methods of setting out. (e) Methods of horsing and bracing. (f) Note - Slipper rides on top of running rule and a section is cut out of the mould underneath to allow for clearance of the running rule.

AN ANALYSIS OF THE PLASTERING TRADE

BLOCK 4: Moulds - Construction
and Use

UNIT 2: Fabricating the mould

OPERATIONS	KNOWLEDGE
<hr/>	
7. Laying-out a twin slipper mould:	(a) B4, U2, O6, Kb, d, e. (b) Use of upper and lower slipper. (c) Methods of fabricating slippers. (d) Advantages of using mould. (e) Use of brace in lieu of handle. (f) Note - Upper slipper that runs on running rule is narrower than lower slipper.
8. Laying-out a soffit mould:	(a) Blueprint reading to determine location. (b) B4, U2, O6, Kb, d, e. (c) Methods for setting out soffit mould. (d) Use of soffit mould. (e) Method for bearing slipper and nib. (f) Method of running on the underside of the running rule. (g) Note conditions requiring use of running screed on soffit. (h) Note - There is no need of a soffit screed with this mould, unless the soffit is too wide.
9. Laying-out a tail mould:	(a) B4, U2, O6, Kb, d, e. (b) Method of positioning. (c) Use of front and back braces. (d) Use of longer slipper. (e) Note - The tail section should be sturdy to prevent chatters when cornice swells.
10. Laying-out an adjustable splay mould:	(a) Use of adjustable section. (b) Use of washers, bolts and wing nuts. (c) Use of stationary section. (d) Use of slotted section. (e) Use of carriage bolts.
11. Laying-out a raised and sunk panel mould:	(a) Use of moulds. (b) Method of fabricating for knuckle clearance so as not to damage cornice members. (c) Methods of horsing and installing slipper. (d) Method of installing handle for clearance. (e) Why right and left hand moulds are necessary.

AN ANALYSIS OF THE PLASTERING TRADE

BLOCK 4: Moulds - Construction and Use

UNIT 2: Fabricating the mould

OPERATIONS	KNOWLEDGE
<hr/>	
12. Laying-out a pin mould:	<ul style="list-style-type: none">(a) Use of pin mould.(b) Use of pins on slipper.(c) Methods of building up slipper to run against face of template.(d) Method of placing pins at proper distance on slipper.(e) Use of wooden blocks in lieu of pins.(f) Use of saw cuts on nib rule for bending allowance when required.(g) Note - The general construction of a pin mould is similar to any ordinary running mould. Various type templates.
13. Laying-out a vertical corner moulding:	<ul style="list-style-type: none">(a) Blueprint reading to determine type.(b) Use of corner mould.(c) Methods of horsing the mould.(d) Various methods of positioning the mould for running.(e) "Knack" of running a mould.(f) Method of forming stop ends with various design tin templates.(g) Method of chamfering stop ends with the use of joint rule.(h) Science - Plumb and square mould in position and cut vertical corner for running clearance.
14. Laying-out a box mould:	<ul style="list-style-type: none">(a) Blueprint reading to determine corner radius.(b) Use of box mould.(c) Use of two pieces of running rule cut to approximately four inches.(d) Method of nailing and jointing to develop a right angle.(e) Method of cutting tin plate to proper radius.(f) Method of nailing tin plate on end of right angle.(g) Method of forming external plaster arris.(h) Method of running up and down box-mould square on sides of plaster arris.(i) Method of finishing off round external angle.(j) Science - This mould used only to form small radius on external angles without the use of running rules.

AN ANALYSIS OF THE PLASTERING TRADE

BLOCK 4: Moulds - Construction
and Use

UNIT 2: Fabricating the mould

OPERATIONS	KNOWLEDGE
<hr/>	
15. Laying-out rake moulds:	(a) Blueprint reading to determine pitch. (b) Method of developing pitch. (c) Use of square. (d) Use of wall line and ceiling pitch. (e) Method of developing mould on a radius. (f) Method of positioning normal profile to develop rake. (g) Terminology: (i) Internal and external corners. (ii) Acute, Obtuse and right angles.
16. Laying-out a squeeze or plaster mould:	(a) Use of mould. (b) Method of taking impression off old cornice. (c) Method of fabricating and assembling sections to form mould. (d) Use of nails on wood profile. (e) Method and use of Plaster of Paris to form original profile. (f) Methods used to prevent plaster mould from sticking to old cornice. (g) Science - Plaster screeds to be lined up true with original work.

AN ANALYSIS OF THE PLASTERING TRADE

Block 5: Cornice Work - Running and Mitering

TABLE OF CONTENTS

Block Five - One Unit

Operation	Page
1: Running Screeds	21
2: Laying-out Screeds	21
3: Positioning Mould on Screeds	21
4: Lining out to Run	21
5: Running Rules	21
6: Sticking or Nailing	21
7: Blocking Out and Running	21
8: Mitering	22
9: Mitering Breaks and Returns by Hand	22
10: Running on Front of Breasts and Wall Checks ..	22
11: Running Return Break in Position	22
12: Running Cornice for Indirect Lighting	23
13: Planting and Pointing Ornaments	23

AN ANALYSIS OF THE PLASTERING TRADE

BLOCK 5: Cornice Work

UNIT 1: Running and Mitring

OPERATIONS	KNOWLEDGE
1. Running Screeds:	(a) Use of screeds. (b) Bl, Ul, Ol, Kb, e. (c) Use of putty and gypsum plasters. (d) Safety Precautions Code: 8.8., 8.9. and 8.14.
2. Laying-out screeds:	(a) Bl, Ul, Ol, Kb, e. (b) Method of laying on material for screed. (c) Method of bringing up to a true surface. (d) Method of sweetening screed for running. (e) Use of feather-edge and rod.
3. Positioning mould on screeds:	(a) Method of positioning the mould in a square position. (b) Use of perpendicular members in a plumb position. (c) Methods of plumbing mould.
4. Lining out to run:	(a) Method of marking back of the nib. (b) Use of ceiling line. (c) Use of chalk. (d) Method of holding and pulling tension on line. (e) Use of fine chalk line.
5. Running rules:	(a) Method of setting out. (b) Use of straight running rules. (c) Method of intersecting rules properly at angles. (d) Use of number one pine for running rules.
6. Sticking or nailing:	(a) Method used for sticking rules. (b) Bl, Ul, Ol, Kb, e. (c) Method of nailing rules.
7. Blocking out and running:	(a) Bl, Ul, Ol, Kb, e. (b) Method of holding mould. (c) "Knack" of running and feeding mould.

AN ANALYSIS OF THE PLASTERING TRADE

BLOCK 5: Cornice Work

UNIT 1: Running and Miterring

OPERATIONS	KNOWLEDGE
8. Miterring:	<ul style="list-style-type: none">(a) Use of joint rule.(b) Methods of manoeuvring of joint rules.(c) B1, U1, O1, Kb, e.(d) Method of roughing out miter.(e) Use of small tool and brush.(f) Method of finishing off miter clean.(g) Various sizes of joint rules.(h) Reasons for wetting joinings of miter if dry.
9. Miterring breaks and returns by hand:	<ul style="list-style-type: none">(a) Use of breaks and returns on cornice.(b) Method of taking projection with plumb-bob.(c) Method of using two joint-rules to take projections.(d) Method of marking miter cut.(e) B5, U1, O8, Kb, d, e.(f) Use of square and common tape.
10. Running cornice on front of breasts and wall checks:	<ul style="list-style-type: none">(a) Use of rabbet.(b) Methods of running projecting section far enough.(c) Use of running strip.(d) Use of plaster wads.(e) Methods of bracing projecting sections.(f) Meaning of pilaster and chimney breast.(g) Blueprint reading to determine dimensions of pilaster and chimney breasts.
11. Running return break in position:	<ul style="list-style-type: none">(a) Use of temporary board to extend the wall line of the return or break.(b) Materials used as a temporary board.(c) Method of cutting out temporary board to fit cornice.(d) Methods of bracing temporary board.(e) Methods of setting up for running.(f) Methods of removing board after internal miter has been mitered.(g) Note - Front section should be run first and putty placed over external corner for easy cleaning of members.

AN ANALYSIS OF THE PLASTERING TRADE

BLOCK 5: Cornice Work

UNIT 1: Running and Miterring

OPERATIONS	KNOWLEDGE
<hr/>	
12. Running cornice for indirect lighting:	<ul style="list-style-type: none">(a) Blueprint reading to determine type and section.(b) Various methods of laying out.(c) Methods of squaring, leveling and dotting.(d) Various methods of horsing the mould for running.(e) Methods of running curved ends.
13. Planting and pointing ornaments:	<ul style="list-style-type: none">(a) Blueprint reading to determine location and details.(b) Use of various types.(c) Allowance made on running mould for sticking enrichment.(d) Method of outlining profile of mould.(e) Methods of spacing, sticking, leveling and plumbing ornaments.(f) Use of proper internal and external miters when spacing enrichments.(g) Familiarity with ornaments such as dentils, egg and dart, acanthus leaf and lamb's tongue, etc.(h) Purpose and use of various small tools.(i) Methods of pointing up and making good.

Block 6: Bench Work - Running Miscellaneous Details

TABLE OF CONTENTS

Block Six - One Unit

Operation	Page
1: Securing and Laying out to Run Mould	25
2: Positioning the Nib of the Mould	25
3: Nailing Running Rules	25
4: Preparing and Erecting Core for the Mould	25
5: Running and Finishing Off the Moulding	25
6: Removing Moulding from the Bench	25
7: Positioning Moulding for Cutting	26
8: Running Circular Moulding	26
9: Laying-out elliptical Panels or Ovals Without Using a Trammel	26
10: Laying-out Small ellipses with Two Circular Run Pieces	27
11: Making Miter cuts for Acute and Obtuse Angles	27

AN ANALYSIS OF THE PLASTERING TRADE

BLOCK 6: Bench Work

UNIT 1: Running miscellaneous details

OPERATIONS	KNOWLEDGE
<hr/>	
1. Securing and laying out to run mould:	(a) Methods of securing bench. (b) Use of sturdy trestles. (c) Use of horizontal planks. (d) Science: Leveling and bracing. (e) Safety Precautions Code: 8.14.
2. Positioning the nib of the mould:	(a) Use of vertical plank. (b) Methods of adjusting and supporting for nib rest. (c) Use of running rule. (d) Use of plaster screed. (e) Use of rebate or cleat. (f) Methods of positioning rebate or cleat. (g) Method of using rules to form the rebate.
3. Nailing running rules:	(a) Method of striking chalk line on bench. (b) Methods of adjusting and securing running rule. (c) Use of various grease ingredients for easy running. (d) Methods of applying grease.
4. Preparing and erecting core for the mould:	(a) Use of core for moulds. (b) Methods of building up core with old pieces of lumber. (c) Use of lime putty, sand and paper. (d) Type of material used for muffler. (e) Use of muffler. (f) Method of muffling mould.
5. Running and finishing off moulding:	(a) Method of soaking Plaster of Paris, in water. (b) Method of handling mould. (c) B5, U1, O7, Kc. (d) Method of running off. (e) Science: Reasons for no admixtures with Plaster of Paris.
6. Removing moulding from bench:	(a) Use of tools for removal. (b) Methods of relieving and lifting moulding from bench.

AN ANALYSIS OF THE PLASTERING TRADE

BLOCK 6: Bench Work

UNIT 1: Running miscellaneous details

OPERATIONS	KNOWLEDGE
7. Positioning moulding for cutting:	(a) Method of positioning on bench. (b) Method of marking on run-piece so as to have no waste. (c) Method of marking and taking projections. (d) Method of cutting left and right hand miters. (e) Method of setting for planting. (f) Method of gauging for planting. (g) Method of pointing up. (h) Use of tools required as follows: Saw, plumb-bob, rule, square, joint rods, small tool, brush and level.
8. Running circular mouldings:	(a) Use of a wood fixed block. (b) Use of center pin. (c) Use of metal washer. (d) Use of gig or radius stick. (e) Method of making eye or slot out of proper gage tin. (f) Various methods of fabricating the eye. (g) Method of measuring radius. (h) Method of fixing radius stick. (i) Methods of setting up various types of circular moulds. (j) Mathematics: Geometry of the circle.
9. Laying-out elliptical panels or ovals without a trammel:	(a) Blueprint reading to determine proportions. (b) Use of tack, pencil and line. (c) Method of finding major and minor axis. (d) Method of securing line. (e) Method of holding pencil vertical in the loop of the string. (f) Method of running pencil in either direction to form curve. (g) Mathematics: Geometry of the Ellipse, as required.

AN ANALYSIS OF THE PLASTERING TRADE

BLOCK 6: Bench Work

UNIT 1: Running miscellaneous details

OPERATIONS	KNOWLEDGE
<hr/>	
10. Laying-out small ellipses with two circular run pieces:	(a) Use of two circular run pieces of different radii. (b) Use of diameter of large circle being double that of smaller circle. (c) Use of two quarters of large circle. (d) Use of two quarters of small circle. (e) Method of assembling to form ellipse. (f) Use of remaining segments to form another ellipse the same size.
11. Determining miter cuts for acute and obtuse angles:	(a) Method of determining internal and external miter cuts. (b) Use of miter cuts for ornaments and mouldings. (c) Use of two steel squares. (d) Method of positioning squares. (e) Method of producing center line to establish angle. (f) Method of transferring angle to miter box or bench. (g) Mathematics: Geometry and terminology of angles - acute, obtuse, external, internal. (h) Science: Placing steel squares, heel to heel and opening the protruding blades the right distance and measuring to establish miter cut.

AN ANALYSIS OF THE PLASTERING TRADE

Block 7: Arches - Different Types and Techniques

TABLE OF CONTENTS

	Page
Unit 1: Miscellaneous Techniques	29
Operation 1: Running Mouldings on Arches	
2: Laying-out Arches	
3: Fabricating Gig or Radius Stick	
4: Placing Screeds and Positioning Mould	
Unit 2: Elliptical Arches	31
Operation 1: Laying-out Three Points for Elliptical Arch	
2: Horsing and Sweeping, Using Gig Sticks	
3: Running Moulding on Elliptical Arches	
4: Running Elliptical Curve, Using a Trammel	
5: Running Soffit Panel, Using Template	
Unit 3: Circular Type Arches	33
Operation 1: Laying-out Semi-circular Arch	
2: Laying-out Segment Arch	
Unit 4: Gothic Type Arches	34
Operation 1: Laying-out Gothic Arch	
2: Laying-out Tudor Arch	
Unit 5: Semi-circular Groined Ceilings	35
Operation 1: Laying-out	
Unit 6: Elliptical Groined Ceilings	36
Operation 1: Laying-out with Pressed Screed Templates	

AN ANALYSIS OF THE PLASTERING TRADE

BLOCK 7: Arches - Different Types and Techniques

UNIT 1: Miscellaneous Techniques

OPERATIONS	KNOWLEDGE
1. Running mouldings on arches:	<ul style="list-style-type: none">(a) Blueprint reading to determine span, type and details.(b) Use of arch mouldings or plain arrises.(c) Methods of finding required curves for various arch designs.(d) Use of sturdy board, plank or radius block.(e) Use of T-piece section for radius point.(f) Method of using longer board and plank than span opening.(g) Use of radius block.(h) Method and care required for slipper clearance when using wide board or plank across opening.(i) Method and use of nails, wood wedges and plaster wads.(j) Science: Arch designs and terminology involved.
2. Laying-out arches:	<ul style="list-style-type: none">(a) Blueprint reading to determine type, span and rise.(b) Method of finding spring line.(c) Method of leveling spring line, across opening.(d) Methods of finding centers or radius points.(e) Method of tacking T-piece on spanning board.(f) Method of using vertical T-piece higher on center of span board.(g) Method of positioning spanning board lower than spring line.(h) Method of checking horse of mould to run lower than finished arch.(i) Method of leveling spanning board.(j) Method of transferring correct center to T-piece on spanning board at opening.(k) Method of positioning center pin or stout screw.(l) Method of finding correct radius to fit both sides of opening and crown of arch.(m) Science: Leveling.(n) Safety Precautions Code: 8.8., 8.9., and 8.14.

AN ANALYSIS OF THE PLASTERING TRADE

BLOCK 7: Arches - Different
Types and Techniques

UNIT 1: Miscellaneous Techniques

OPERATIONS	KNOWLEDGE
<hr/>	
3. Fabricating gig or radius stick:	(a) Method of using suitable iron or brass for eye or slot. (b) Method and Use of sturdy wood for gig stick. (c) Methods of securing gig stick to the horse of the mould. (d) Method of positioning eye or slot in line with profile of the mould. (e) Type, gauge of metal.
4. Placing screeds and positioning mould:	(a) Method of screeding and care to be used. (b) Method of positioning and plumbing mould on gig or radius stick. (c) Method of projecting stout screw or pin sufficiently for eye or slot on gig stick. (d) Science: Head of screw or nail to be removed if used as a center pin.

AN ANALYSIS OF THE PLASTERING TRADE

BLOCK 7: Arches - Different Types and Techniques

UNIT 2: Elliptical Arches

OPERATIONS

KNOWLEDGE

1. Laying out three points for Elliptical Arch:

- (a) Blueprint reading to determine span, radius centers, rise and details.
- (b) Method of laying out screed wide enough to receive revolving slipper.
- (c) Method of wedging plank flush with finished wall line.
- (d) Methods of shaping boards or planks to allow mould to run below spring line on short radius sections.
- (e) Method of securing with plaster wads.
- (f) Method of setting longest radius from given crown or rise to center board.
- (g) Reasons for using sturdy spanning boards across opening and securing same.
- (h) Mathematics: Geometry to locate radius points of the arch.
- (i) Safety Precautions Code: 8.8., 8.9.

2. Horsing and position revolving, using gig stick:

- (a) Method of horsing mould in position.
- (b) Methods of securing short radius stick on stock of mould.
- (c) Use of short radius stick beyond its length.
- (d) Method of securing short radius stick on top of long radius stick.
- (e) Method of positioning eye or slot on radius stick from given distance from lower member.
- (f) Method of finding line of intersection between radius sections or point of radius change.
- (g) Science: Reasons for running small radius sections first.

3. Running moulding on elliptical shaped arches:

- (a) Blueprint reading to determine section of moulding.
- (b) Method of running on elevation.
- (c) Use of ribs or templates.
- (d) Use of two pins, pegs or plates on mould.
- (e) Method of running over rib on template.
- (f) Type of wood and thickness used.
- (g) Method of positioning template in opening or span and securing.

AN ANALYSIS OF THE PLASTERING TRADE

BLOCK 7: Arches - Different Types and Techniques

UNIT 2: Elliptical Arches

OPERATIONS	KNOWLEDGE
4. Running elliptical curve, using a trammel:	(a) Use of trammel. (b) Method of fabricating a trammel. (c) Method of mounting trammel. (d) Method of positioning horizontal slot central with spring line. (e) Method of keeping vertical slot in exactly the center of opening. (f) Method of checking trammel for plumb and level. (g) Method of mounting mould in position. (h) Procedure to ensure that pins run freely in slots. (i) Method of locating pins properly for given rise and span. (j) Safety Precautions Code: 8.8., 8.9., and 8.14.
5. Running Soffit panel, using a template:	(a) Blueprint reading to determine type. (b) Method of forming a soffit panel in arch. (c) Method of making template smaller to form soffit panel. (d) Method of extending template below the spring line. (e) Allowance for pins on the mould to pass low enough to form right contour of arch. (f) Precaution when marking spring line on rib. (g) Method of establishing depth from bottom member to underside of pins. (h) Method of leveling wood blocks of proper thickness across ends of opening for template rest. (i) Method of horsing mould with pins close to center to pass around 'quick' part of curve without jumping. (j) Method of filing pins to run true over template. (k) Note - Additional piece of wood can be nailed to underside of slipper for extra bearing on face of template.

AN ANALYSIS OF THE PLASTERING TRADE

BLOCK 7: Arches - Different
Types and Techniques

UNIT 3: Circular type arches

OPERATIONS

KNOWLEDGE

1. Laying-out semi-circular
arch:

- (a) Blueprint reading to determine radius and spring line.
- (b) Method of finding center or half span.
- (c) B6, U1, O8, Kb, d, e, f, g, h.
- (d) Use of strong board or plank.
- (e) Methods of lining up board or plank with wall line.
- (f) Use of wood wedges and plaster wads.
- (g) Method of screeding and positioning mould.
- (h) Running and feeding mould with use of hawk and trowel.
- (i) Safety Precautions Code: 8.8., 8.9.

2. Laying-out segment arch:

- (a) Blueprint reading to determine width and height of span.
- (b) Various methods of laying out.
- (c) Method of laying out on floor.
- (d) Method of laying out if floor space limited.
- (e) B6, U1, O8, Kb, d, e, f, g, h.
- (f) B7, U1, O1, Ke, f, h.
- (g) Use of chalk, line, big square and steel tape.
- (h) Mathematics: Geometry to determine radius of circle passing through three points, viz., crown and two spring points.

AN ANALYSIS OF THE PLASTERING TRADE

BLOCK 7: Arches - Different
Types and Techniques

UNIT 4: Gothic type arches

OPERATIONS	KNOWLEDGE
<hr/>	
1. Laying-out Gothic Arches:	<ul style="list-style-type: none">(a) Blueprint reading to determine type and details.(b) Methods of laying out various types.(c) B6, U1, O8, Kb, d, e, f, g, h.(d) Use of strong board or plank depending on type of arch.(e) Methods of bisecting various type arches to find radius.(f) Terminology as follows: Equilateral, Acute, Lancet, Horseshoe and Gothic Drop Arches.(g) Mathematics: (i) How to bisect a given line at right angles. (ii) Geometry to locate centre of arc having located the spring point and crown point.(h) Safety Precautions Code: 8.8., and 8.9.
2. Laying-out Tudor Arches:	<ul style="list-style-type: none">(a) Blueprint reading to determine span and height.(b) Methods of laying-out with span and rise given.(c) Method by dividing span into four equal parts.(d) Method by using span as height to find radius length.(e) Method by dividing span into six equal parts.(f) Finding radius by intersection of arcs.(g) B6, U1, O8, Kb, d, e, f, g, h.

AN ANALYSIS OF THE PLASTERING TRADE

BLOCK 7: Arches - Different
Types and Techniques

UNIT 5: Semi-circular groined
ceilings

OPERATIONS

KNOWLEDGE

1. Laying-out:

- (a) Blueprint reading to determine span and height.
- (b) Method of finding the centers of the four spans.
- (c) Method and use of semi-circular screeds.
- (d) Method of assembling gig stick for screeds.
- (e) Method of swinging on pin at radius point to form screeds.
- (f) Method of checking the four spans for identical radius.
- (g) Note - Gothic groin produces an acute internal angle at the crown while circular and elliptical produce a curve.
- (h) Safety Precautions Code: 8.8., and 8.9.

AN ANALYSIS OF THE PLASTERING TRADE

BLOCK 7: Arches - Different
Types and Techniques

UNIT 6: Elliptical groined ceilings

OPERATIONS

KNOWLEDGE

1. Laying-out with pressed
screed template:

- (a) Blueprint reading to determine rectangle and diagonal groins.
- (b) Use of templates to produce screeds.
- (c) Method and use of pressed screeds.
- (d) Method of leveling spring line.
- (e) Method of positioning large template on spring line.
- (f) Method of positioning small template on spring line.
- (g) Method of pressing Plaster of Paris between ceiling and template.
- (h) Method of handling rod on arched pressed screed.
- (i) Science: Bench mark and water level.
- (j) Safety Precautions Code: 8.8., and 8.9.

AN ANALYSIS OF THE PLASTERING TRADE

Block 8: Columns - Different Types and Techniques

TABLE OF CONTENTS

Block Eight - One Unit

Operation	Page
1: Lining-out Square Columns and Pilasters	38
2: Drawing and Setting out the Entases of Swell and Diminishing Columns	38
3: Constructing and Preparing Plastering Rod for a Plain Diminishing Column	38
4: Filling-in Between Pressed Screeds and Collars	38
5: Setting-out Cast Fluted Columns, Bases and Caps	39

AN ANALYSIS OF THE PLASTERING TRADE

BLOCK 8: Columns

UNIT 1: Different Types and Techniques

OPERATIONS	KNOWLEDGE
1. Lining-out square columns and pilasters:	(a) Blueprint reading to determine details. (b) Various methods of laying-out. (c) Lining out a series of columns. (d) Method of squaring. (e) Method of plumbing. (f) Use of marginal sticks and templates. (g) Method of cross lining a series of columns. (h) Mathematics: Geometry of Square, Hexagon, Octagon, etc. (i) Safety Precautions Code: 8.8., and 8.9.
2. Drawing and setting out the entases of swell and diminishing columns:	(a) Blueprint reading to determine diameter, type and material. (b) Forming plaster collars on bench. (c) Forming plaster collars within templates. (d) Method of laying-out (a) and (b). (e) Method of laying-out straight, swell and diminished. (f) B8, U1, O1, Kc, e, g. (g) Various ways of profiling the shaft of the column.
3. Constructing and preparing plastering rod for a plain diminishing column:	(a) Method of laying-out on floor. (b) Method of finding true curve. (c) Thickness and type of wood needed for rod. (d) Use of nails at straight and curved points to develop rod. (e) Use of nails projecting on board. (f) Use of two extra pieces of sturdy boards and cleat to develop rod. (g) Method of splicing together. (h) Science: Sliding board and securing pencil at same time to develop curve line.
4. Filling in between pressed screeds or collars:	(a) Method of holding special curved rod. (b) Method of keeping rod in plumb position. (c) Method and use of short strokes when using rod to cut off surplus mortar. (d) Reasons why curved rod must be made of sturdy lumber.

AN ANALYSIS OF THE PLASTERING TRADE

BLOCK 8: Columns

UNIT 1: Different Types and Techniques

OPERATION	KNOWLEDGE
<hr/>	
5. Setting-out cast fluted columns, bases and caps:	<ul style="list-style-type: none">(a) Blueprint reading to determine locations and type.(b) Methods of laying-out and assembling.(c) Methods of lining, plumbing and leveling.(d) Use of plaster wads, excelsior and wire, etc.(e) Method of cutting out new cast sections to secure and assemble the column.(f) Method of mitering and making good.(g) Method of breaking large columns down into sections for easy handling.(h) The classical orders, Tuscan, Doric, Ionic, Corinthian and the Composite order.

AN ANALYSIS OF THE PLASTERING TRADE

Block 9: Special Features - Miscellaneous Techniques

TABLE OF CONTENTS

Block Nine - One Unit

Operation	Page
1: Forming Niches	41
2: Laying-out Plane Panelled Ceilings	41
3: Laying-out a Coffered Ceiling	41

AN ANALYSIS OF THE PLASTERING TRADE

BLOCK 9: Special Features

UNIT 1: Miscellaneous Techniques

OPERATIONS	KNOWLEDGE
<hr/>	
1. Forming niches:	(a) Blueprint reading to determine height, width and other details. (b) Purpose of niches. (c) Type of arch for the crown. (d) Type of recess at the base. (e) Method of laying-out from spring and wall line. (f) Method of developing impost mould around spring line. (g) Science: Mould plate and a hinged running mould center board and mould with a pivot and bolt. (h) Safety Precautions Code: 8.8., and 8.9.
2. Laying-out panelled ceilings:	(a) Blueprint reading to determine size, shape and character of the room. (b) Method of laying-out plain or decorative. (c) Panelling by false beams. (d) Types or details of mouldings. (e) Method of forming a ribbed panel ceiling. (f) Science: Leveling, dotting and running. (g) Mathematics: Geometrical construction to determine curves or angles. (h) Safety Precautions Code: 8.8., and 8.9.
3. Laying-out a coffered ceiling:	(a) Blueprint reading to determine details. (b) Methods of finding center line. (c) Method of dotting for wall lines. (d) Method of spacing coffers. (e) Use of bench mark and water level. (f) Methods of supporting coffers. (g) Use of braces, hangers, channels, plaster wads, templates and wire, etc.

EDMOND CLOUTIER, C.M.G., O.A., D.S.P.
QUEEN'S PRINTER AND CONTROLLER OF STATIONERY
OTTAWA, 1956.